

**RECLAMATION DISTRICT NO. 548**  
**1101 West Tokay Street**  
**Lodi, CA 95240**

Bill Morais, Pres.  
Ray Coldani, Trustee  
Michael Scriven, Trustee

Robert Sternfels, Counsel  
Tom Rosten, Engineer

September 19, 1993

Mr. Steve Yeager  
Deputy Executive Officer  
Bay-Delta Oversight Committee  
1416 Ninth Street, Suite 1306-3  
Sacramento, CA 95814

Dear Mr. Yeager:

Thank you for requesting that this District review the Draft Briefing Paper on Delta Levees. The document was referred to me for engineering evaluation. My comments follow:

- o The document covers most of the critical issues that presently affect the Delta levee system. It contains many similes which help the lay person understand some very difficult technical issues. I particularly liked the simile on page 12 where the underlying peat foundation was compared to toothpaste.
- o The document should contain a "Recommendations" section. This section should contain the following recommendations:
  - Long term cost sharing arrangements beyond Year 2000 between the State and the local Reclamation Districts need to be implemented by the Legislature in order to assure the timely maintenance and rehabilitation of the non-Project levees.
  - The Legislature should create an emergency fund to pay for the repair of a levee failure and the subsequent recovery of an inundated tract or island.
  - The Legislature should set a speed limit of no more than five miles per hour for boats which traverse identified sloughs and small channels in order to reduce the erosion damage to adjacent levees and channel berms. This action would reduce levee maintenance costs and help preserve the extraordinary wildlife habitat that exists on the channel islands.
  - The various State agencies with jurisdiction over the channel islands should develop and implement a plan to preserve the channel islands and enhance the habitat on each of these islands. The Department of Water Resources should be the lead agency.
- o The draft document alludes to catastrophic levee failure and indicates that emergency funding from FEMA may be available if a failed levee(s) met Hazard Mitigation Plan standards. However, if FEMA declares that a failed levee did not meet HMP standards and withholds emergency funds, then there is a distinct probability that a failed levee which protected a small Reclamation District, such as Woodward Island, would not be repaired and the island would remain inundated. The Mildred Island levee failed and the owners did not have the financial ability to repair the levee break and reclaim the island. As a result, that island is still inundated. In my opinion, the State needs to set up an emergency fund of approximately \$20,000,000 to pay for the repair of failed levees and the recovery of an inundated island or tract. A cost sharing mechanism could be built into the authorization of such a fund by the Legislature. (A fund this large could repay the recovery costs of three or four islands.
- o The draft document glosses over the controversy that has developed between the Reclamation Districts and the Department of Fish and Game regarding vegetation management on the existing levees, especially those belonging to Reclamation Districts that participate in the levee subventions program set up by S.B. 34. DFG has been interpreting a long term loss of habitat as any vegetation disturbance

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resulting from levee maintenance activities which does not recover in one year. In my opinion, this is not what the legislature meant when it enacted S.B. 34. However, since the legislation did not contain a definition of "a long term loss of habitat", DFG has employed its rule making authority to provide a very restrictive definition of the controversial phrase. To me, the phrase "long term" defines a period that is more lengthy than one year. For instance, long term health care does not define long term as one year. If the phrase "long term" when applied to loss of vegetation on a levee covered a period of four or five years, then I believe that the controversy between the Reclamation Districts and the DFG would disappear.

However, as long as DFG continues to use its narrow interpretation of "long term loss of habitat", then, many District's will have their hands tied because mitigation requirements are so difficult to meet. Necessary maintenance will be forgone while brush continues to grow on their levees. The ultimate result will be a levee failure! Thus, DFG will have preserved some brush for a short while that would have grown back in four or five years while setting up a catastrophic levee failure. If the island or tract that is inundated by such a failure has limited financing, then the levee failure results in the formation of another inland sea.

The appendix to the proposed FEMA/State agreement that you referred to on page 3 of the draft document could be helpful if DFG would bless it. My experience with DFG has been that mid level bureaucrats, with their own personal agendas, exert great influence over the policies adopted by that agency. In a nut shell, they appear to believe that the levees can sustain an unlimited amount of brush without risking levee failure. This is not true, as the draft document so ably points out. Levee inspectors and engineers must be able to observe the condition of the levee so that corrective repairs can be undertaken in a timely manner to avoid crises conditions during flood events. Corrective repairs usually require the removal of vegetation so that such repairs can be made. DFG appears to opposes the removal of such vegetation unless it can be mitigated. This opposition continues even though it may lead to the failure of the levee.

The controversy is fueled by DFG's desire to control the actions of the Reclamation Districts which are responsible for the maintenance of the non-Project levees. Persons with a non-engineering, non-construction background (mid level bureaucrats) want to dictate the manner in which levees are maintained. Right now, preservation of brush and trees is given a higher priority than levee maintenance. DFG needs to reverse these priorities. They should work with the Districts to make sure that needed maintenance is accomplished. That would set up the atmosphere for a cooperative effort to preserve and enhance wildlife habitat where opportunities exist.

- o No mention was made in the draft document regarding the habitat values that exist on the channel islands that are situated throughout the Delta streams and sloughs. Many rare and endangered species live on these islands. However, many of the islands are disappearing as a result of erosion damage caused by wave action. Much of the wave action is attributable to wakes from passing boats. (In my opinion, boat caused erosion is greatly accelerating the disappearance of these channel islands.) I believe that DFG, in concert with other involved State agencies, should develop a program to preserve and enhance the wildlife habitat on these islands. Some of the best habitat within the legal Delta is located on these islands. The briefing paper should contain a complete discussion of the preservation of these channel islands.
- o The draft document does not discuss the role that near shore tule berms play in combatting levee erosion. My observations lead me to conclude that tule berms dampen the energy force carried by each wave and thus attenuates erosion damage to the levee. The growth of tules along the water side toe of the levee should be encouraged by the Delta Reclamation Districts. A discussion of the role of tule berms in protecting the levee should be included under Erosion Control on page 17 of the draft document.
- o The draft document contained no discussion of the role that the dredging of material from adjacent streambeds has played in the longtime maintenance of the Delta levee system. It does not point out that recent restrictions on dredging resulting from protection of endangered species, such as winter run

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Salmon and Delta Smelt, have inhibited the ability of the Reclamation Districts to maintain the non-Project levees. Only two months of the year (July & August) are now open to dredging, after a site specific dredging permit has been acquired from the Corps of Engineers. It is predictable that those who own dredges will move them to another part of the United States because they will not be able to afford to keep them in the Delta to work only two months out of each year. This will result in fill material being imported to the Delta levees from outside borrow areas or from borrow pits developed on each island. Rough calculations indicate that it will be from twice to three times as costly to furnish and place a cubic yard of fill material on a levee as it would be if the material were acquired by dredging.

Mr. Robert Sternfels, Secretary and Counsel for this District, is presently on vacation. Upon his return, he will forward additional comments regarding the draft document. His comments will address some of the legal issues involved in Delta levee maintenance and improvement.

Sincerely,



Thomas J. Rosten  
District Engineer

cc: Robert Sternfels, Secretary  
Bill Morais, President  
Mike Scriven, Trustee  
Ray Coldani, Trustee